

## Lab 5 Report: Adam Fenjiro, CS3425

### 1. login.php

1. URL: <https://classdb.it.mtu.edu/~afenjiro/login.php>

2. Screenshot

username:

password:

Welcome msmith

Welcome to our online minibank!

We can help you to transfer the money or display your accounts.

What would you like to do? Please click one of the buttons.

### 3. Source code

```
<!DOCTYPE html>
<html>
<body>

<form method="post" action="login.php">
  <label for="username">username:</label>
  <input type="text" id="username" name="username" value=""><br>
  <label for="password">password:</label>
  <input type="text" id="password" name="password" value=""><br><br>
  <input type="submit" name="login" value="login">
</form>

<?php
require "db.php";
  session_start();

  // The User clicked on the login button
```

```
if ( isset($_POST["login"]) ) {

    //Cheking the username / password
    //When true, redirect to 'main.php'

    if (authenticate($_POST["username"], $_POST["password"]) ==1) {
        $_SESSION["username"]=$_POST["username"];
        echo $_SESSION["username"]=$_POST["username"];
        header("LOCATION:main.php");
        return;
    }
    else {
        echo '<p style="color:red">incorrect username and password</p>'; }
    }
?>

</body>
</html>
```

## 2. bankoperation.php

1. URL: <https://classdb.it.mtu.edu/~afenjiro/bankoperation.php>

2. Screenshot

Account	Balance
A100	500.00
B100	5000.00
C100	50000.00

From account:

To account:

Amount:

Money has been transfered successfully

3. Source code

```
<?php
session_start();

if (!isset($_SESSION['username'])) {
    header("LOCATION:login.php");
    exit();
}

require "db.php";

// Check if the form is submitted
if ($_SERVER['REQUEST_METHOD'] === 'POST') {
    if (isset($_POST["submit_transfer"])) {
        $from = $_POST["from_account"];
        $to = $_POST["to_account"];
        $amount = $_POST["amount"];
        $user = $_SESSION["username"];
        $result = transfer($from, $to, $amount, $user);
        echo $result;
    }
}
?>

<!DOCTYPE html>
<html>
```

```

<head>
    <style>
        table, th, td {
            border: 1px solid black;
            border-collapse: collapse;
        }
    </style>
</head>
<body>

<?php
if (isset($_POST["operation"])) {
    if ($_POST["operation"] === "accounts") {
        // Display account information
        $accounts = get_accounts($_SESSION["username"]);
        ?>
        <table>
            <tr>
                <th>Account</th>
                <th>Balance</th>
            </tr>
            <?php
            foreach ($accounts as $row) {
                echo "<tr>";
                echo "<td>" . $row[0] . "</td>";
                echo "<td>" . $row[1] . "</td>";
                echo "</tr>";
            }
            ?>
        </table>
        <?php
    } elseif ($_POST["operation"] === "transfer") {
        // Display transfer form
        ?>
        <form method="post" action="bankoperation.php">
            <label for="from_account">From account:</label>
            <input type="text" id="from_account" name="from_account"
required><br>

            <label for="to_account">To account:</label>

```

```
        <input type="text" id="to_account" name="to_account"
required><br>

        <label for="amount">Amount:</label>
        <input type="text" id="amount" name="amount" required><br>

        <input type="hidden" name="confirm" value="1"> <!-- Add a
hidden field for confirmation -->
        <input type="submit" value="Confirm" name="submit_transfer">
    </form>
    <?php
    }
}
?>

</body>
</html>
```

### 3. db.php source code

```
<?php
function connectDB()
{
$config = parse_ini_file("./db.ini");
$dbh = new PDO($config['dsn'], $config['username'], $config['password']);
$dbh->setAttribute(PDO::ATTR_ERRMODE, PDO::ERRMODE_EXCEPTION);
return $dbh;
}

//return number of rows matching the given user and passwd.
function authenticate($user, $passwd) {
try {
$dbh = connectDB();
$stmt = $dbh->prepare("SELECT count(*) FROM lab5_customer ".
"where username = :username and password = sha2(:passwd,256) ");
$stmt->bindParam(":username", $user);
$stmt->bindParam(":passwd", $passwd);
$result = $stmt->execute();
$row=$stmt->fetch();
$dbh=null;
return $row[0];
}catch (PDOException $e) {
print "Error!" . $e->getMessage() . "<br/>";
die();
}
}

function get_accounts($user)
{
//connect to database
//retrieve the data and display
try {
$dbh = connectDB();
$stmt = $dbh->prepare("SELECT account_no, balance name FROM
lab5_accounts where username =
:username ");
$stmt->bindParam(":username", $user);
$stmt->execute();
return $stmt->fetchAll();
}
```

```

$dbh = null;
} catch (PDOException $e) {
print "Error!" . $e->getMessage() . "<br/>";
die();
}
};

function transfer($from, $to, $amount, $user)
{
try {
$dbh = connectDB();
$dbh->beginTransaction();
// check if there are enough balance in the from account
$stmt = $dbh->prepare("select balance from lab4_accounts where
account_no=:from ");
$stmt->bindParam(":from", $from);
$result = $stmt->execute();
$row = $stmt->fetch();
if ($row) {
$currentBalance = $row[0];
if ($currentBalance < $amount) {
$dbh->rollBack();
$dbh = null;
return "Not enough balance in $from";
}
} else {
$dbh->rollBack();
$dbh = null;
return "Account $from does not exist";
}

$stmt = $dbh->prepare("update lab4_accounts set balance = balance -
:amount " .
"where account_no=:from");
$stmt->bindParam(":amount", $amount);
$stmt->bindParam(":from", $from);
$result = $stmt->execute();
$rowCount = $stmt->rowCount();
if ($rowCount != 1) {
$dbh->rollback();
}
}
}

```

```
return "Something is not right because the total number of rows that will
be affected is " .
$rowCount;
}
$statement = $dbh->prepare("update lab4_accounts set balance = balance +
:amount " .
"where account_no= :to");
$statement->bindParam(":amount", $amount);
$statement->bindParam(":to", $to);
$result = $statement->execute();
$rowCount = $statement->rowCount();
if ($rowCount != 1) {
$dbh->rollback();
return "Something is not right because the total number of rows that will
be affected is " .
$rowCount;
}
$dbh->commit();
return "Money has been transfered successfully";
} catch (Exception $e) {
$dbh->rollBack();
echo "Failed: " . $e->getMessage();
}
}
?>
```